REMARKS/ARGUMENTS

Claims 2, 4 and 6-25 are now pending in the application. Claims 1, 3, 5 have been canceled. Claims 2, 4, 6-11 have been amended. Claims 12-25 are newly added. The amendments are supported by the specification, claims, and drawings as originally filed. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-3 and 6-11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Yokoyama (US 2002/0086705 A1). This rejection is respectfully traversed.

New independent claim 12 is added to replace original claim 1, which recites "setting a first tag corresponding to each of broadband access devices and a second tag corresponding to each of non-cascading ports in each of the broadband access devices, wherein the first tag and the second tag are employed to identify user positions." That is, as to different non-cascading ports of a broadband access device, the first tags are the same while the second tags are different, and they are employed to identify user positions (see the present invention: page 7, lines 6-8). Applicant respectfully submits that Yokoyama fails to teach or suggest the above limitations.

Yokoyama at best appears to show a subscriber wireless access system, including a virtual dedicated line network, one or more base stations, and one or more customer stations. "Each base station accommodates a number of customer stations **wirelessly connected** by Ethernet frames (see para. [0034])".

It is illustrated in para. [0040] of Yokoyama that "the station-specific identifier CPE-IDs of the subordinate CPEs #1 -#4 are entered in association with the group identifiers VLAN-Tag of the same CPEs, ...VLAN-Tag: 1 is associated with CPE#1 assigned CPE-ID: 1, VLAN-Tag: 2 with CPE#2 assigned CPE: 2". It can be seen that a CPE-ID is an identifier of a customer station wirelessly connected to a base station, and the CPE-ID does not specially identify a port of the base station. That is, CPE-IDs are different from second tags for identifying non-cascading

ports of a broadband access device. Also, it is clear from the above example that CPE#1 and CPE#2 both connect to base station #1, but they are assigned with different VLAN-Tags, CPE#1 associated with VLAN-Tag: 1, CPE#2 associated with VLAN-Tag: 2. Therefore, VLAN-Tags are also different from the first tag for identifying the broadband access device.

In view of the above, Yokoyama does not disclose "setting a first tag corresponding to each of broadband access devices and a second tag corresponding to each of non-cascading ports in each of the broadband access devices, wherein the first tag and the second tag are employed to identify user positions."

Further, claim 12 recites "when a port receiving a message in a broadband access device among the broadband access devices is a cascading port, transferring the message received from the cascading port; and when a port receiving a message in the broadband access device is a non-cascading port, inserting the first tag ... and the second tag ...." It should be apparent to a person having ordinary skill in the art that a cascading port in a broadband access device is used for connecting a cascading device, wherein the cascading device is composed of one or more other "broadband access devices, which is equal to the combination of a plurality of user access devices, corresponding tags have already been inserted into Ethernet messages transmitted by the cascading device at the first time when the user is connected (see the present application, page 8, lines 12-16)", while a non-cascading port in a broadband access device is used for connecting a user connected into the network at the first time.

By contrast, Yokoyama at best appears to disclose "the station-specific identifier CPE-IDs of the subordinate CPEs #1 -#4 are entered in association with the group identifiers VLAN-Tag of the same CPEs (see para. [0040])". That is, Ethernet frames received from all the CPEs are assigned a VLAN-Tag via establishing relations between CPE-IDs and VLAN-Tags without differentiating cascading port and non-cascading port, and Yokoyama does not appear to provide different processing (i.e., as to a cascading port, directly transferring the message without other processing; as to a non-cascading port, inserting tags into the message) for messages received from these two kinds of ports. To put it another way, no where does Yokoyama appear to disclose or suggest that the base station has cascading port and non-cascading port.

In view of the above, Yokoyama does not disclose "when a port receiving a message in a broadband access device among the broadband access devices is a cascading port, transferring the message received from the cascading port; and when a port receiving a message in the broadband access device is a non-cascading port, inserting the first tag ... and the second tag ...."

Further, claim 12 recites "when a broadband access **server** receiving the message carrying the first tag and the second tag, identifying, by the broadband access server, user position according to the first tag and the second tag inserted into the message; wherein the broadband access server knows through which broadband access device the user is connected according to the first tag, and through which port of the broadband access device the user is connected according to the second tag". As to claim 12, the first tag and the second tag contained in the message correspond to the broadband access **device** and the non-cascading port of the broadband access device. These two tags can not be set at will. Only the first tag of the broadband access device and the second tag of the non-cascading port receiving the message may be inserted into the message. Therefore, the two tags are reliable for identifying position of the user sending out the message.

For illustration, it is supposed that a first message sent out by a first user is received from a first non-cascading port, the first tag corresponding to the broadband access device of the first non-cascading port and the second tag corresponding to the first non-cascading port are inserted into the message, **wherein the first tag is a device tag and the second tag is a port tag**. Also, it is supposed that a second message sent out by a second user is received from a second non-cascading port of the broadband access device, then the first tag of the broadband access device and the second tag of the second non-cascading port are inserted into the second message.

Therefore, when the two messages are sent out from the broadband access device and received from a broadband access server, the broadband access server may identify user position according to the first tag and the second tag. That is, the broadband access server may know that the two users corresponding to the two messages are connected into the network from the same

broadband access device and from different non-cascading ports of broadband access device. From the above mentioned information, position of the two users can be located.

Yokoyama appears at best to disclose "in the table T2 provided in the BSE of the base station #1, the station-specific identifier CPE-IDs of the subordinate CPEs #1 -#4 are entered in association with the group identifiers VLA-Tag of the same CPEs. VLAN-Tag: 1 is associated with CPE#1 assigned CPE-ID: 1, VLAN-Tag: 2 with CPE#2 assigned CPE: 2, ... (see para. [0040])", and "the contents of the MIB tables can be defined by the SNP server (see para. [0038])".

It can be seen that, in Yokoyama, multiple CPEs connected with a base station may be associated with different groups according to actual demand. That is, Ethernet frames from different customer stations may be tagged with different VLAN-Tags (see para. [0032]). For example, a first Ethernet frame sent from CPE1 to Base station # 1 is tagged with VLAN-Tag 1, and a second Ethernet frame sent from CPE2 to Base station # 1 is tagged with VLAN-Tag 2. It is clear that VLAN-Tag can not reflect physical position of the user (i.e., from which base station is the user connected into the network). Therefore, when the first and second Ethernet frames are further transmitted to ATM trunk network, the physical position of the user can not be determined according to the tags contained in the Ethernet frame.

In view of the above, Yokoyama does not disclose "inserting the first tag corresponding to the broadband access device and the second tag corresponding to the non-cascading port into the message received from the non-cascading port, and transferring the message with the inserted first tag and second tag; when a broadband access server receiving the message carrying the first tag and the second tag, identifying, by the broadband access server, user position according to the first tag and the second tag having been inserted into the message".

In view of the foregoing, Applicant respectfully submits that Claim 12 and its dependent claims 2, 4, 6-11 are patentable over the art cited by the Examiner. Thus, Applicant respectfully requests withdrawal of the rejections.

NEW CLAIMS

Independent device claim 13 and system claim 19 include features similar to claim 12, and are considered patentable over the cited art, as well.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested.

Respectfully submitted,
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